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ABSTRACT

This document, which is intended for use by community and junior colleges throughout Mississippi, contains curriculum frameworks for the course sequences in the surgical technology program. Presented in the introductory section are a description of the program and suggested course sequence. Section I iists baseline competencies for the program, and section II consists of outlines for each of the following courses in the sequence: fundamentals of surgical technology; principles of surgical technique; surgical anatomy; surgical microbiology; basic and related surgical procedures; specialized surgical procedures; advanced surgical procedures; and related academic courses--anatomy and physiology I and II, microbiology, general chemistry I, general chemistry lab I, general biology I and II, college algebra, child psychology, adolescent psychology, nutrition, personal and community health I and II, and marriage and family. Each course outline contains some/all of the following: course name and abbreviation; course classification; course description; prerequisites; and competencies and suggested objectives. Recommended tools and equipment are listed in section III. Appended are lists of related academic topics and workplace skills for the 21st century and student competency profiles for both courses. (MN)

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Mississippi Curriculum Framework for Surgical Technology

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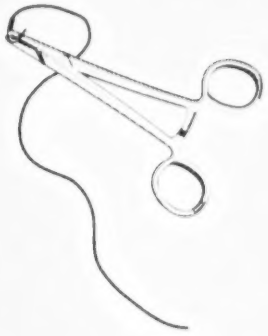

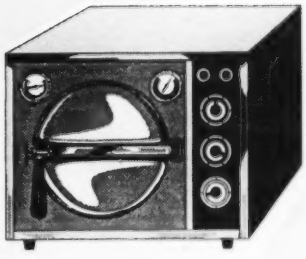

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Postsecondary Vocational and Technical Education 1995

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MISSISSIPPI

CURRICULUM FRAMEWORK

FOR

SURGICAL TECHNOLOGY PROGRAMS

(CIP: 51.0909 - Surgical/Operating Room Tech.)

Direct Inquiries to:

State Supervisor
Allied Health and Related Technology
Office of Vocational and Technical Education
Mississippi Department of Education
P.O. Box 771
Jackson, Mississippi 39205
(601) 359-3461

For copies of this publication, contact:

Research and Curriculum Unit
P.O. Drawer DX
Mississippi State, MS 39762
(601) 325-2510

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FOREWORD

In order to survive in today's global economy, businesses and industries have had to adopt new practices and procedures. Total quality management, statistical process control, participatory management, and other concepts of high performance work organizations are practices by which successful companies survive. Employers now expect their employees to be able to read, write, and communicate effectively; solve problems and make decisions; and interact with the technologies that are prevalent in today's workplace. Vocational-technical education programs must also adopt these practices in order to provide graduates who can enter and advance in the changing work world.

The curriculum framework in this document reflect these changes in the workplace and a number of other factors that impact on local vocational-technical programs. Federal and state legislation calls for articulation between high school and community college programs, integration of academic and vocational skills, and the development of sequential courses of study that provide students with the optimum educational path for achieving successful employment. National skills standards, developed by industry groups and sponsored by the U. S. Departments of Education and Labor, provide vocational educators with the expectations of employers across the United States. All of these factors are reflected in the framework found in this document.

Each postsecondary program of instruction consists of a program description and a suggested sequence of courses which focus on the development of occupational competencies. Each vocational-technical course in this sequence has been written using a common format which includes the following components:

- Course Name - A common name that will be used by all community/junior colleges in reporting students.
- Course Abbreviation - A common abbreviation that will be used by all community/junior colleges in reporting students.
- Classification - Courses may be classified as:
  - Vocational-technical core - A required vocational-technical course for all students.
  - Vocational-technical elective - An elective vocational-technical course.
  - Related academic course - An academic course which provides academic skills and knowledge directly related to the program area.
  - Academic core - An academic course which is required as part of the requirements for an Associate degree.
- Description - A short narrative which includes the major purpose(s) of the course and the recommended number of hours of lecture and laboratory activities to be conducted each week during a regular semester.

- Prerequisites - A listing of any prerequisite courses that must be taken prior to or on enrollment in the course.
- Competencies and Suggested Objectives - A listing of the competencies (major concepts and performances) and of the suggested student objectives that will enable students to demonstrate mastery of these competencies.

The following guidelines were used in developing the program(s) in this document and should be considered in compiling and revising course syllabi and daily lesson plans at the local level:

- The content of the courses in this document reflects approximately 75 percent of the time allocated to each course. For example, in a four semester hour course consisting of 30 hours lecture and 120 hours of laboratory activities, approximately 22 hours of lecture and 90 hours of lab should be taken by the competencies and suggested objectives identified in the course framework. The remaining 25 percent of each course should be developed at the local district level and may reflect:
  - Additional competencies and objectives within the course related to topics not found in the State framework, including activities related to specific needs of industries in the community college district.
  - Activities which develop a higher level of mastery on the existing competencies and suggested objectives.
  - Activities and instruction related to new technologies and concepts that were not prevalent at the time the current framework was developed/revised.
  - Activities which implement components of the Mississippi Tech Prep initiative, including integration of academic and vocational-technical skills and coursework, school-to-work transition activities, and articulation of secondary and postsecondary vocational-technical programs.
  - Individualized learning activities, including worksite learning activities, to better prepare individuals in the courses for their chosen occupational area.

- Sequencing of the course within a program is left to the discretion of the local district. Naturally, foundation courses related to topics such as safety, tool and equipment usage, and other fundamental skills should be taught first. Other courses related to specific skill areas and related academics, however, may be sequenced to take advantage of seasonal and climatic conditions, resources located outside of the school, and other factors.

- Programs that offer an Associate of Applied Science degree must include a minimum 15 semester credit hour academic core. Specific courses to be taken within this core are to be determined by the local district. Minimum academic core courses are as follows:

- 3 semester credit hours Math/Science Elective
- 3 semester credit hours Written Communications Elective
- 3 semester credit hours Oral Communications Elective
- 3 semester credit hours Humanities/Fine Arts Elective
- 3 semester credit hours Social/Behavioral Science Elective

It is recommended that courses in the academic core be spaced out over the entire length of the program, so that students complete some academic and vocational-technical courses each semester. Each community/junior college has the discretion to select the actual courses that are required to meet this academic core requirement.

- In instances where secondary programs are directly related to community and junior college programs, competencies and suggested objectives from the high school programs are listed as Baseline Competencies. These competencies and objectives reflect skills and knowledge that are directly related to the community and junior college vocational-technical program. In adopting the curriculum framework, each community and junior college is asked to give assurances that:
  - students who can demonstrate mastery of the Baseline Competencies do not receive duplicate instruction, and
  - students who cannot demonstrate mastery of this content will be given the opportunity to do so.

- The roles of the Baseline Competencies are to:
  - Assist community/junior college personnel in developing articulation agreements with high schools, and
  - Ensure that all community and junior college courses provide a higher level of instruction than their secondary counterparts

- The Baseline Competencies may be taught as special "Introduction" courses for 3-6 semester hours of institutional credit which will not count toward Associate degree requirements. Community and junior colleges may choose to integrate the Baseline Competencies into ongoing courses in lieu of offering the "Introduction" courses or may offer the competencies through special projects or individualized instruction methods.

- Technical elective courses have been included to allow community colleges and students to customize programs to meet the needs of industries and employers in their area.

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Revision Team

Debra Hinton, Pearl River Community College, Hattiesburg
Vicki Tunnell, Itawamba Community College, Tupelo
Martha Thomas, Hinds Community College (Allied Health Center), Jackson

Academic Instructor

Linda Barham, Meridian Community College, Meridian

RCU Staff

Darla K. Haines, Ph.D., Research and Curriculum Specialist

OVTE Staff

Sandra Bates, R.N., State Supervisor, Allied Health and Related Technology

Reviewers

Educators:
Janice Jacobs
Martha Thomas
Gwen Adcocok
Mary Ann Jones
Judith Penvenuth
Anna Faye Kelley
Vicki Tunnell
Karen Attwell

Practitioners:
Catherine Bond
Debra M. Clearson
Catherine Middleton
Mattie Carter
Marie Daffer

Technical Committee

Judy Stanford
June Cotton
Sarah C.Sawyer
Monica Stennis
Barbara Hayman
Sandra Freeman
Deborah Rogers
Lynette Miller
Sharon Burch
Linda Barrett
Mike Higginbotham
Jim Tesar
Rebecca Champion

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PROGRAM DESCRIPTION

SURGICAL TECHNOLOGY

Surgical Technology is an instructional program that prepares an individual to serve as a member of the surgical team to work with surgeons, anesthesiologists and certified registered nurse anesthetists, registered nurses, and other surgical personnel in delivering patient care and assuming appropriate responsibilities before, during, and after surgery.

Graduates of the 12-month program will be awarded the Certificate of Surgical Technology. The Associate of Applied Science Degree in Surgical Technology will be awarded the successful graduate of the 24-month program. Qualified graduates may apply to the Association of Surgical Technologists for the National Certifying Examination and become a Certified Surgical Technologist.

SURGICAL TECHNOLOGY

SUGGESTED COURSE SEQUENCE*

Baseline Competencies for Surgical Technology**

FIRST YEAR (CERTIFICATE)

3 sch Fundamentals of Surgical Technology (SUT 1113)
6 sch Principles of Surgical Technique (SUT 1216)
4 sch Surgical Anatomy (SUT 1314)
3 sch Surgical Microbiology (SUT 1413)
3 sch Written Communications Elective

19 sch

8 sch Basic and Related Surgical Procedures (SUT 1518)
8 sch Specialized Surgical Procedures (SUT 1528)

16 sch

SUMMER TERM (8-weeks)

8 sch Advanced Surgical Procedures (SUT 1538)

SECOND YEAR (TECHNICAL)

3 sch Oral Communications Elective
4 sch Microbiology (BIO 2924)
6 sch Approved Electives***
3 sch Anatomy and Physiology I (BIO 1513)

16 sch

3 sch Humanities/Fine Arts Elective
3 sch Social/Behavioral Science Elective
3 sch Math/Natural Science Elective
6 sch Approved Electives***
3 sch Anatomy and Physiology II (BIO 1523)

18 sch

* Students who lack entry level skills in math, English, science, etc. will be provided related studies.

** Baseline competencies are taken from the high school Allied Health program. Students who can document mastery of these competencies should not receive duplicate instruction. Students who cannot demonstrate mastery will be required to do so.

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*** APPROVED ELECTIVES:

General Chemistry I (CHE 1213) with General Chemistry Laboratory I (CHE 1211)
General Biology I (BIO 1134)
General Biology II (BIO 1144)
Algebra (MAT 1313 or higher)
Child Psychology (Human Growth and Development I) (EPY 2513)
Adolescent Psychology (Human Growth and Development II) (EPY 2523)
Nutrition (HEC 1253)
Personal and Community Health I (HPR 1213)
Personal and Community Health II (HPR 1223)
Marriage and Family (SOC 2143)

SECTION I:

BASELINE COMPETENCIES

BASELINE COMPETENCIES FOR POSTSECONDARY SURGICAL TECHNOLOGY PROGRAMS

The following competencies and suggested objectives are taken from the publication *Mississippi Curriculum Framework for Secondary Allied Health.* These competencies and objectives represent the baseline for entrance into the postsecondary Surgical Technology courses. Students enrolled in postsecondary courses should either (1) have documented mastery of these competencies, or (2) be provided with these competencies before studying the advanced competencies in the Surgical Technology program.

Baseline competencies may be integrated into existing courses in the curriculum or taught as special "Introduction" courses. The "Introduction" courses may be taught for up to six semester hours of institutional credit and may be divided into two courses. If the Baseline Competencies are to be taught as "Introduction" courses, each course should be at least 3 credit hours. The following course number(s) and description should be used:

Course Name(s): Introduction to Surgical Technology, Introduction to Surgical Technology I, or Introduction to Surgical Technology II

Course Abbreviation(s): SUT 100(3-6), SUT 1013, SUT 1023

Classification: Vocational-Technical Core

Description: These courses contain the baseline competencies and suggested objectives from the high school Allied Health curriculum which directly related to the community college Surgical Technology program. The courses are designed for students entering the community college who have had no previous training or documented experience in the field. (3-6 semester hours based upon existing skills for each student. May be divided into 2 course for a maximum total of 6 hours of institutional credit.)

Competencies and Suggested Objectives:

1. Review material related to course and professional organizations.
   a. Identify student and course expectations.
   b. Identify allied health professional student organizations.
   c. Demonstrate effective teamwork skills.
   Related Academic Topics (See Appendix A): C1, C6
   Workplace Skills (See Appendix B): WP2
2. Apply communications in health care.
   a. Utilize effective communication skills.

Related Academic Topics (See Appendix A): C1, C6
Workplace Skills (See Appendix B): WP2, WP3

3. Explain professional ethics and legal responsibility.
   a. Explain professional ethics and legal responsibility including negligence, malpractice, and health occupation code of conduct.
   b. Define confidentiality.
   c. Identify and explain the rules of ethics.

   Related Academic Topics (See Appendix A): C1, C4, C6
   Workplace Skills (See Appendix B): WP2, WP3
4. Explain client's rights.
   a. Report improper care to include negligence, unethical conduct, etc.
   b. Report abuse on include physical, verbal, and physiological.
   c. Identify ways to promote client's rights and privacy.
   d. Respect client.

   Related Academic Topics (See Appendix A): C1, C6
   Workplace Skills (See Appendix B): WP3
5. Utilize universal precautions.
   a. Explain importance of universal precautions in life practices and health care.
   b. Explain the state and federal government's role in universal precautions.
   c. Relate universal precautions to the transmission of infectious diseases including HIV, AIDS, and HBV, and TB.
   d. Demonstrate hand-washing technique.
   e. Demonstrate donning and removing clean gloves.

   Related Academic Topics (See Appendix A): C1, C4, C6, S8
   Workplace Skills (See Appendix B): WP2
6. Recognize safety procedures and policies.
   a. Describe basic safety procedure.
   b. Describe accident prevention methods and disaster plans.
   c. Follow facility policies.

   Related Academic Topics (See Appendix A): C1, C4, C6, S8
   Workplace Skills (See Appendix B): WP2
7. Perform basic safety procedures.
   a. Assist with basic emergency procedures to include falls, seizures, and fainting.
   b. Attain Class C certification in cardiopulmonary resuscitation.
   c. Demonstrate procedures of first aid for sudden illness and accident.
   d. Demonstrate body mechanics.

   Related Academic Topics (See Appendix A): C1, C4, C6, S8
   Workplace Skills (See Appendix B): WP2, WP6
8. Recognize and use medical terminology.
   a. Demonstrate the use of medical references to spell medical terms correctly.
   b. Spell designated medical terms correctly.

c. Define and divide medical terms into root words, prefixes and suffixes.
d. Interpret the common medical abbreviations and symbols including meanings, and uses.
e. Demonstrate the use of medical terms and abbreviations in reading, speaking, interpreting, and writing simulated medical records.

Related Academic Topics (See Appendix A): C1, C4, C5, C6, S1, S8
Workplace Skills (See Appendix B): WP2, WP4

9. Recognize the structure and functions of each organ system and apply related basic skills.
   a. Interpret the basic organizations of the body.
   b. Interpret the basic structures and functions of the integumentary system.
   c. Interpret the basic structures and functions of the musculoskeletal system.
   d. Interpret the basic structures and functions of the circulatory system.
      i. Define, locate, and check the four main vital signs.
   e. Interpret the basic structures and functions of the respiratory system.
   f. Interpret the basic structures and functions of the digestive system.
   g. Interpret the basic structures and functions of the urinary system.
   h. Interpret the basic structures and functions of the nervous system
   i. Interpret the basic structures and functions of the sensory system.
   j. Interpret the basic structures and functions of the reproductive system.
   k. Interpret the basic structures and functions of the endocrine system.

   Related Academic Topics (See Appendix A): C1, C2, C5, C6, M4, S1, S8
   Workplace Skills (See Appendix B): WP2, WP3, WP4

10. Develop patient contact care skills by utilizing medical terminology and basic skills in a health care setting.
    a. Demonstrate how to don and remove sterile gloves using sterile technique.
    b. Demonstrate how to open sterile packages without contaminating contents using sterile technique.
    c. Prepare a basic sterile dressing tray without contamination using sterile technique.
    d. Identify basic supplies used for dressing change including forceps, sterile scissors, and gauze.
    e. Demonstrate donning and removing isolation mask, eye shields, cap, gown, goggles, and cover shoes according to health care facility policy.
    f. Demonstrate double bagging technique and isolation technique according to health care facility policy.
    g. Define three general principles of isolation, three purposes of isolation, and five types of isolation according to CDC/OSHA guidelines.

    Related Academic Topics (See Appendix A): C1, C2, C4, C6, M4, S1, S8
    Workplace Skills (See Appendix B): WP2, WP3, WP6

11. Demonstrate job seeking and job keeping skills.
    a. Prepare a resume containing essential information.

b. Complete a job application form.
c. Explain procedures for job interviews.
d. Demonstrate the role of an applicant in a job interview.
e. Describe job interview etiquette.
f. Maintain positive relations with clients and peers.
g. Demonstrate job keeping skills.

Related Academic Topics (See Appendix A): C1, C4, C6
Workplace Skills (See Appendix B): WP2, WP3

12. Assess support services careers by utilizing medical terminology and basic skills in exploring specific support services careers.
    a. Describe the role and function of the dietary assistant team members including job description, level of educaiton, and credentials required.
    b. Describe basic methods of sterilization and disinfection according to health care facility policy.
    c. Describe and demonstrate baasic techniques to prepare, wrap, and sterilize instruments and equipment according to health care facility policy.
    d. Demonstrate basic surgical scrub using aseptic technique.
    e. Describe and simulate the operation of an autoclave with safety and accuracty according to health care facility policy.
    f. Describe the preparation of an operative area according to policy of the health care facility.
    g. Describe procedures used by a surgical team when preparing and cleaning a surgical room according to policy of the health care facilities policy.
    h. Describe the careers available in central supply including job description, credentials, and education.
    i. Describe biomedical and engineering careers in health care.

Related Academic Topics (See Appendix A): C1, C4, C6, S8
Workplace Skills (See Appendix B): WP2, WP3, WP6

SECTION II:

CURRICULUM GUIDE

FOR

SURGICAL TECHNOLOGY

SURGICAL TECHNOLOGY COURSES

Course Name: Fundamentals of Surgical Technology

Course Abbreviation: SUT 1113

Classification: Vocational-Technical Core

Description: This is a basic introductory course including hospital and surgical suite organization and environment, history, legal responsibilities, terminology, interpersonal relationships, pharmacology, and anesthesia. (3 sch: 3 hr. lecture)

Prerequisites: CPR-C certification

Competencies and Suggested Objectives:

1. Identify and interpret a job description for a surgical technologist.
   a. Trace the history, development, education, certification, and role of the surgical technologist.
   b. Explain surgical conscience as it applies to the surgical technologist and other personnel in the operating room.
   c. Define and describe the role and function of each member of the surgical team.
   d. Describe the physical characteristics and environmental standards of the surgery suite.
   e. Explain hospital and surgery organization.
   f. Identify principles of communication and interpersonal relationships as they relate to operating room personnel.
   g. Define and interpret the ethical, moral, and legal responsibilities of the surgical technologist.

   Related Academic Topics (See Appendix A): C1, C2, C4, C6
   Workplace Skills (See Appendix B): WP2, WP6
2. Identify, define, pronounce, and spell various word parts of medical terms.
   a. Identify, define, and pronounce various medical terms relating to surgery including abbreviations and symbols.

   Related Academic Topics (See Appendix A): C4, C6, S1
   Workplace Skills (See Appendix B): WP2, WP6
3. Identify the principles of drugs and anesthesia used in the care of the surgical patient.
   a. Identify the principles and concepts for the use and administration of surgical drugs and anesthetic agents.
   b. Convert temperature, lengths, weights, and capacities to the metric system.
   c. Use the metric system in measuring temperature, lengths, weights, and capacities.

Related Academic Topics (See Appendix A): C1, C2, C4, M1, M4, S5
Workplace Skills (See Appendix B): WP2, WP6

4. Discuss principles of environmental safety procedures.
   a. Describe electrical hazards, fire safety, radiation precautions, and laser precautions.
   b. Explain what information is included in Material Safety Data Sheets.
   c. Demonstrate an understanding of the Centers for Disease Control (CDC) Universal Precautions Guidelines and Recommendations as applied to the surgical suite.
      i. Demonstrate handling of body fluids/specimens.
      ii. Demonstrate handwashing technique.
      iii. Demonstrate handling of sharps.
      iv. Demonstrate disposal of medical wastes.

   Related Academic Topics (See Appendix A): C1, C2, C4, S1, S5, S8
   Workplace Skills (See Appendix B): WP2, WP6

Course Name: Principles of Surgical Technique

Course Abbreviation: SUT 1216

Classification: Vocational-Technical Core

Description: This course is a comprehensive study of aseptic technique, safe patient care, and surgical techniques. (6 sch: 2 hr. lecture, 8 hr. lab)

Prerequisites: None

Competencies and Suggested Objectives:

1. Identify, describe, and demonstrate the principles of pre-op routines, transportation, positioning, prepping, and draping of the surgical patient.
   a. Explain pre-op routines for surgical patients.
   b. Conduct pre-op routines for surgical patients.
   c. Describe the principles and concepts of transporting, positioning, prepping, and draping of the surgical patient.
   d. Demonstrate transportation, positioning, prepping, and draping of the surgical patient using correct body mechanics.

   Related Academic Topics (See Appendix A): C1, C2, C4
   Workplace Skills (See Appendix B): WP2, WP6
2. Discuss the concepts of asepsis, and demonstrate their applications.
   a. Discuss the principles and concepts of aseptic technique.
   b. Demonstrate the principles and concepts of aseptic technique.
   c. Demonstrate scrubbing, gowning, and gloving.

   Related Academic Topics (See Appendix A): C1, C2, C4, C6, S2
   Workplace Skills (See Appendix B): WP2, WP3, WP6
3. Identify and demonstrate basic case preparation for surgical procedures.
   a. Identify classes, functions, and names of basic instruments.
   b. Demonstrate care, handling, and assembly of basic instruments.
   c. Identify various surgical supplies and equipment.
   d. Demonstrate the applications of various surgical supplies and equipment.
   e. Identify wound closure materials.
   f. Demonstrate handling and selection of wound closure materials.
   g. Establish and maintain a sterile field in the lab setting.

   Related Academic Topics (See Appendix A): C1, C2, C4, C6, S8
   Workplace Skills (See Appendix B): WP2, WP3, WP6

Course Name. Surgical Anatomy

Course Abbreviation: SUT 1314

Classification: Vocational-Technical Core

Description: Emphasis is placed on the structure and function of the human body as related to surgery. Application of the principles of surgical anatomy to participation in clinical experience. (4 sch: 3 hr. lecture, 2 hr. lab)

Prerequisites: None

Competencies and Suggested Objectives:

1. Explain the integrated structures and function of body systems including cells, tissues, organs, and systems as they relate to physiologic integrity.
   a. Describe the organization of the body, and define anatomical terminology.
   b. Describe the basic anatomical structure and function of cells, tissues, organs, and systems.

   Related Academic Topics (See Appendix A): C1, C2, C4, C6, S1
   Workplace Skills (See Appendix B): WP2, WP6
2. Identify and locate basic structure and function(s) of the following systems:
   a. Integumentary
   b. Muscular
   c. Skeletal
   d. Nervous
   e. Sensory
   f. Endocrine
   g. Circulatory
   h. Respiratory
   i. Digestive
   j. Urinary
   k. Reproductive (male and female)

   Related Academic Topics (See Appendix A): C1, C2, C4, C6, S1
   Workplace Skills (See Appendix B): WP2, WP6

Course Name: Surgical Microbiology

Course Abbreviation: SUT 1413

Classification: Vocational-Technical Core

Description: This is an introduction to pathogenic microorganisms related to surgery and their effect on wound healing and infection. It includes principles of sterilization and disinfection. (3 sch: 3 hr. lecture)

Prerequisites: None

Competencies and Suggested Objectives:

1. Recognize the relationship between humans and pathogenic and nonpathogenic bacteria.
   a. Distinguish between the various organisms and their diseases.
   b. List portals of entry and exit, distinguish between direct and indirect contact, and list means of controlling the transmission of infections.
   c. Discuss the general mechanisms that protect the human body from harmful foreign substances.
   d. Select ways the body resists pathogens and match types of immunities with their descriptions.
   Related Academic Topics (See Appendix A): C1, C2, C4, C6, S1, S2
   Workplace Skills (See Appendix B): WP2, WP6
2. Identify and describe how tissues react and are restored to normal function following trauma.
   a. List types of injuries that cause damage to tissues.
   b. Describe the healing process and types of healing.
   c. Explain the classifications of surgical wounds.
   Related Academic Topics (See Appendix A): C1, C2, C4, C6, S1, S2
   Workplace Skills (See Appendix B): WP2, WP6
3. Identify and describe physical and chemical methods used to protect patients and workers from invasion by pathogenic microbes.
   a. Describe the physical methods of antimicrobial control and an application of each.
   b. Describe ways in which chemicals kill or inhibit bacterial growth.
   Related Academic Topics (See Appendix A): C1, C2, C4, C6, S2, S5
   Workplace Skills (See Appendix B): WP2, WP6
4. Identify principles and demonstrate techniques of sterilization.
   a. List methods and principles of sterilization, and discuss advantages and disadvantages of each.
   b. Identify and discuss monitoring methods.
   c. Prepare items for various types of sterilization.

d. Discuss operation of a steam sterilizer.
e. Explain procedures for soaking instruments or scopes.
f. Describe the methods and principles of sterilization and disinfection, and demonstrate the ability to prepare, select the appropriate method, and sterilize or disinfect surgical supplies.

Related Academic Topics (See Appendix A): C1, C2, C4, C6, M1, M2, S2, S8
Workplace Skills (See Appendix B): WP2, WP6

Course Name: Basic and Related Surgical Procedures

Course Abbreviation: SUT 1518

Classification: Vocational-Technical Core

Description: This course includes instruction in regional anatomy, pathology, instrumentation, and surgical techniques in general surgery, gynecology, obstetrics, and urology. It requires clinical experience in area hospital surgical suites and related departments. (8 sch: 4 hr. lecture, 12 hr. clinical)

Prerequisites: CPR-C certification, Fundamentals of Surgical Technology (SUT 1113), Principles of Surgical Technique (SUT 1216), Surgical Anatomy (SUT 1314), and Surgical Microbiology (SUT 1413)

Competencies and Suggested Objectives:

1. Discuss the relevant anatomy, indications for surgery, patient preparation, special equipment and supplies, purpose and expected outcome, and possible complications for general, gynecological, obstetrical, and urological procedures.
   a. Identify regional anatomy, pathology, diagnostic procedures, instrumentation, and techniques in general, gynecology, obstetrics, and urology.
   b. Recognize and use instruments, equipment, supplies used in general, gynecology, obstetrics, and urology.
   c. Follow the sequence of procedures and anticipate the needs of the surgeon in general, gynecology, obstetrics, and urology.

   Related Academic Topics (See Appendix A): C1, C2, C4, C6, S1, S8
   Workplace Skills (See Appendix B): WP2, WP3, WP6

Course Name: Specialized Surgical Procedures

Course Abbreviation: SUT 1528

Classification: Vocational-Technical Core

Description: This course includes instruction in regional anatomy, pathology, instrumentation, and techniques in surgical specialty areas of ear, nose, and throat; ophthalmology; and plastic. This course requires clinical experience in area hospital surgical suite and related departments. (8 sch: 4 hr. lecture, 12 hr. clinical)

Prerequisites: CPR-C certification, Surgical Anatomy (SUT 1314), Fundamentals of Surgical Technology (SUT 1113), Principles of Surgical Technique (SUT 1216), and Surgical Microbiology (SUT 1413)

Competencies and Suggested Objectives:

1. Discuss the relevant anatomy, indications for surgery, patient preparation, special equipment and supplies, purpose and expected outcome, and possible complications for the ophthalmological, ear, nose, throat, and plastic surgery.
   a. Identify regional anatomy, pathology, instrumentation and techniques in ophthalmology, ear, nose, throat, and plastic surgery.
   b. Recognize and use instruments, equipment, and supplies necessary for ophthalmology, ear, nose, throat, and plastic surgery.
   c. Follow the sequence of procedures and anticipate the needs of the surgeon in ophthalmology, ear, nose, throat, and plastic surgery.

   Related Academic Topics (See Appendix A): C1, C2, C4, C6, S1, S8
   Workplace Skills (See Appendix B): WP2, WP3, WP6

Course Name: Advanced Surgical Procedures

Course Abbreviation: SUT 1538

Classification: Vocational-Technical Core

Description: This course includes instruction in regional anatomy, pathology, instrumentation, and techniques in surgical specialty areas of orthopedics, neurosurgery, thoracic, vascular, cardiovascular surgery, and employability skills. This course requires clinical experience in area hospital surgical suites and related departments, and a comprehensive final examination. (8 sch: 4 hr. lecture, 12 hr. clinical)

Prerequisites: Basic and Related Surgical Procedures (SUT 1518) and Specialized Surgical Procedures (SUT 1528)

Competencies and Suggested Objectives:

1. Discuss the relevant anatomy, indications for surgery, patient preparation, special equipment and supplies, purpose and expected outcome, and possible complications for the orthopedic, neurosurgery, thoracic, vascular, and cardiovascular surgery.
   a. Identify regional anatomy, pathology, diagnostic procedures, instrumentation, and techniques in orthopedic, neurosurgery, thoracic, vascular, and cardiac surgery.
   b. Recognize and use instruments, equipment, and supplies used in orthopedic, neurosurgery, thoracic, vascular, and cardiac surgical procedures.
   c. Follow the sequence of procedures and participate in orthopedic, neurosurgery, thoracic, vascular, and cardiac surgical procedures.

   Related Academic Topics (See Appendix A): C1, C2, C4, C6
   Workplace Skills (See Appendix B): WP2, WP3, WP6
2. Be able to apply for employment and demonstrate the qualities needed for job retention.
   a. Develop a professional resume.
   b. Discuss completion of job application.
   c. List qualities evaluated during a job interview.

   Related Academic Topics (See Appendix A): C1, C2, C4, C6
   Workplace Skills (See Appendix B): WP2, WP6

RELATED ACADEMIC COURSES

Course Name: Anatomy and Physiology I

Course Abbreviation: BIO 1513

Classification: Related Academic

Description: A lecture/laboratory course dealing with the anatomical and physiological study of the human body, particularly the molecular, cellular, tissue, organs, and systems. Each system is considered in detail regarding both structure and function.

Course Name: Anatomy and Physiology II

Course Abbreviation: BIO 1523

Classification: Related Academic

Description: A lecture/laboratory course of the systems listed but not covered in BIO 1513.

Course Name: Microbiology

Course Abbreviation: BIO 2924

Classification: Related Academic

Description: This is a lecture/laboratory course providing a survey of the microbes (microscopic organisms) with emphasis and detailed study being placed on those effecting other forms of life, especially man. Laboratory is devoted to basic techniques of microbial study, such as identification, control, morphology, physiology, life cycles, and culture techniques.

Course Name: General Chemistry I

Course Abbreviation: CHE 1213

Classification: Related Academic

Description: Atomic and molecular structure, periodicity and atomic properties, stoichiometry, the male concept, types of solutions, energy-enthalpy.

Corequisites: General Chemistry Laboratory I (CHE 1211) must be scheduled concurrently.

Course Name: General Chemistry Laboratory I

Course Abbreviation: CHE 1211

Classification: Related Academic

Description: Must be taken concurrently in phase with the lecture sequence. Selected experiments to illustrate the principles taught in lecture.

Corequisites: General Chemistry I (CHE 1213) must be scheduled concurrently.

Course Name: General Biology I

Course Abbreviation: BIO 1134

Classification: Related Academic

Description: A lecture/laboratory course in basic biological principles including chemical and cellular basis of life, anatomy and physiology, reproduction, genetics, organismal complexity, classification, biosocial problems and ecology.

Course Name: General Biology II

Course Abbreviation: BIO 1144

Classification: Related Academic

Description: A lecture/laboratory cause of the basic principles listed but not covered in BIO 1134.

Course Name: College Algebra

Course Abbreviation: MAT 1313

Classification: Related Academic

Description: This course includes equations, inequalities, functions and graphs, circles, polynomial and rational functions, and systems of equations and inequalities.

Prerequisite: At least two units of high school algebra, or MAT 1233.

Course Name: Child Psychology (Human Growth and Development I)

Course Abbreviation: EPY 2513

Classification: Related Academic

Description: A course which deals with the various aspects of human growth and development. Problems studied include physical, mental, social and emotional development from infancy through preadolescence. Special attention is given to the implications for education.

Course Name: Adolescent Psychology (Human Growth and Development II)

Course Abbreviation: EPY 2523

Classification: Related Academic

Description: A study of the individual during adolescent years.

Course Name: Nutrition

Course Abbreviation: HEC 1253

Classification: Related Academic

Description: A study of nutrients required for normal growth and applied to the selection of food for ingestion, metabolic process of digestion, assimilation, and absorption.

Course Name: Personal and Community Health I

Course Abbreviation: HPR 1213

Classification: Related Academic

Description: Application of principles and practices of healthful living to the individual and community; major health problems and the mutual responsibilities of home, school, and health agencies.

Course Name: Personal and Community Health II

Course Abbreviation: HPR 1223

Classification: Related Academic

Description: A continuation of HPR 1231.

Course Name: Marriage and Family

Course Abbreviation: SOC 2143

Classification: Related Academic

Description: A study of the family as a cultural unit, the institution of marriage, the problems of parenthood and of social-economic adjustments to society.

SECTION III:

RECOMMENDED TOOLS AND EQUIPMENT

RECOMMENDED TOOLS AND EQUIPMENT FOR SURGICAL TECHNOLOGY

Capitalized Item(s)

1. Arm, Suture Practice (4 per program)
2. Bandaging Simulator (1 per program)
3. Basin Stand, Ring Stand (4 per program)
4. Board, Roller/Transfer (1 per program)
5. Endoscopic Camera w/coupler (1 per program)
6. Cart for Endoscopic Equipment (1 per program)
7. Devices, Positioning (2 prone, 2 lateral, 2 sitting, 2 lithotomy, 2 supine per program)
8. Dilation and Curettage Set (1 per program)
9. Endoscope (1 per program)
10. Light Cord (1 per program)
11. Light Source, xenon (1 per program)
12. Monitor (TV) for Endoscope (1 per program)
13. GYN Instrument Tray (1 per program)
14. Minor Surgical Instrument Set (2 per program)
15. Electrocautery Unit (1 per program)
16. Laparotomy Instrument Set (1 per room)
17. Laparscopic Instrument Set (1 per program)
18. Chest Instrument Set (1 per program)
19. Basic Bone Instrument Set (1 per program)
20. Mannequin Teaching, Adult (1 per room)
21. Mayo Stand (2 per room)
22. Tonsil and Adenoid Set (1 per program)
23. Vaginal Hysterectomy Tray (1 per program)
24. Straps, Restraint (1 set per room)
25. Stretcher, Patient, w/brakes and siderails (1 per program)
26. Table Surgical with Armboards (1 per room)
27. Table, Instrument (1 per room).
28. Thermometer, Electronic Digital (1 per program)
29. Thermometer, Tympanic (1 per program)
30. Pneumatic Tourniquet (1 per program)
31. Pneumatic Tourniquet Cuffs: (1 double adult, 1 upper extremity adult, 1 lower extremity adult per program)
32. Prep Table/stand (1 per room)
33. I. V. Poles (2 per room)
34. Standing Platforms (2 per room)
35. Handtable (1 per program)
36. Instrument Containers (1 per room)
37. Nitrogen Tank w/adapter and gauge (1 per program)

38. Surgical Drill/Saw w/hose and attachments (1 per program)
39. Dermatome (1 per program)
40. Skin Mesher (1 per program)
41. Kick Bucket w/coasters (1 per room)
42. Surgical Lights (1 per room)
43. Surgical Sink w/knee controls (2 per room)

Non-Capitalized Item(s)

1. Manual Sphygmomanometer, Adult (1 per 2 students)
2. Sheets, Full Flat (4 per stretcher or table)
3. Thermometers, Glass Oral (12 per program)
4. Pillows (2 per stretcher or table)
5. Stethoscope (1 per 2 students)

INSTRUCTIONAL AIDS

1. Ear Model (1 per program)
2. Eye Model (1 per program)
3. Heart Model (1 per program)
4. Human Skeleton with Stand (1 per program)
5. Mannequin, Teaching, Adult (Internal Organ) (1 per program)
6. Model, Knee Joint (1 per program)
7. TV, Color Monitor, 25" (1 per program)
8. VCR w/remote control (1 per program)
9. Cart, TV/VCR (1 per program)
10. Bookcase/display Shelving (1 per program)
11. Human Lumbar Spine (1 per program)
12. File Cabinet, lockable (1 per teacher)
13. Computer, 486 w/CD-ROM/Super VGA color monitor (1 per 3 students)
14. Printer, Laser (1 per 2 computers)
15. Computer Table (1 per computer)
16. Computer Chairs (1 per table)
17. Stethoscope, Dual Training (2 per program)
18. Laminated Anatomy Posters (1 set per program)
19. Laminated Instrument Posters (1 set per program)
20. Glo-Germ Light Kit (1 per program)

Suggested References: (1 of each per program)

Atlas of Gynecologic Surgery
Operative Surgery
Principles and Practice of Surgical Laparoscopy
Vascular Surgery
Atlas of Cardiothoracic Surgery
Atlas of General Surgery
Atlas of Surgical Anatomy

Software:

A.D.A.M (1 per computer).
Medical Terminology (1 per computer)
Anatomy and Physiology (1 per computer)

Videos: (1 of each per program)

Introduction to the OR
Anatomy and Physiology
Surgical Procedures
Universal Precautions
Safe Sharps Management
Surgical Technique
Wound Healing
Anesthesia (general and local)
Pharmacology
Aseptic Technique
Draping Patient
Dean Vaughn Medical Terminology
Communication Concepts
Ethics and Legalities
Preparing and Maintaining Sterile Field
Cast Application
Diagnostic Techniques
Bacteria and Viruses
Microbiology
Positioning the Surgical Patient
Skin Preps
Powered Surgical Instruments
Colorectal Cancer
Sexually Transmitted Diseases
Patient's Rights
Organ Procurement and Transplantation

Body Mechanics
Pathways Video Series
Scrubbing, Gowning, and Gloving
Skin Cancer
Endoscopic Surgical Procedures
Introduction to Lasers
Laser Procedures
Urological Procedures
General Surgery Procedures
Orthopedic Procedures
Neurological Procedures
Vascular Procedures

APPENDIX A:

RELATED ACADEMIC TOPICS

APPENDIX A

RELATED ACADEMIC TOPICS FOR COMMUNICATIONS

C1 Interpret written material.
C2 Interpret visual materials (maps, charts, graphs, tables, etc.).
C3 Listen, comprehend, and take appropriate actions.
C4 Access, organize, and evaluate information.
C5 Use written and/or oral language skills to work cooperatively to solve problems, make decisions, take actions, and reach agreement.
C6 Communicate ideas and information effectively using various oral and written forms for a variety of audiences and purposes.

EXPANDED TOPICS FOR COMMUNICATIONS

TOPIC C1: Interpret written material.

C1.01 Read and follow complex written directions.
C1.02 Recognize common words and meanings associated with a variety of occupations.
C1.03 Adjust reading strategy to purpose and type of reading.
C1.04 Use sections of books and reference sources to obtain information.
C1.05 Compare information from multiple sources and check validity.
C1.06 Interpret items and abbreviations used in multiple forms.
C1.07 Interpret short notes, memos, and letters.
C1.08 Comprehend technical words and concepts.
C1.09 Use various reading techniques depending on purpose for reading.
C1.10 Find, read, understand, and use information from printed matter or electronic sources.

TOPIC C2: Interpret visual materials (maps, charts, graphs, tables, etc.).

C2.01 Use visuals in written and in oral presentations.
C2.02 Recognize visual cues to meaning (layout, typography, etc.).
C2.03 Interpret and apply information using visual materials.

TOPIC C3: Listen, comprehend, and take appropriate action.

C3.01 Identify and evaluate orally-presented messages according to purpose.
C3.02 Recognize barriers to effective listening.
C3.03 Recognize how voice inflection changes meaning.
C3.04 Identify speaker signals requiring a response and respond accordingly.
C3.05 Listen attentively and take accurate notes.
C3.06 Use telephone to receive information.

C3.07 Analyze and distinguish information from formal and informal oral presentations.

TOPIC C4: Access, organize, and evaluate information.

C4.01 Distinguish fact from opinion.
C4.02 Use various print and non-print sources for specialized information.
C4.03 Interpret and distinguish between literal and figurative meaning.
C4.04 Interpret written or oral communication in relation to context and writer's point of view.
C4.05 Use relevant sources to gather information for written or oral communication.

TOPIC C5: Use written and/or oral language skills to work cooperatively to solve problems, make decisions, take actions, and reach agreement.

C5.01 Select appropriate words for communication needs.
C5.02 Use reading, writing, listening, and speaking skills to solve problems.
C5.03 Compose inquiries and requests.
C5.04 Write persuasive letters and memos.
C5.05 Edit written reports, letters, memos, and short notes for clarity, correct grammar, and effective sentences.
C5.06 Write logical and understandable statements, phrases, or sentences for filling out forms, for correspondence or reports.
C5.07 Write directions or summaries of processes, mechanisms, events, or concepts.
C5.08 Select and use appropriate formats for presenting reports.
C5.09 Convey information to audiences in writing.
C5.10 Compose technical reports and correspondence that meet accepted standards for written communications.

TOPIC C6: Communicate ideas and information using oral and written forms for a variety of audiences and purposes.

C6.01 Give complex oral instructions.
C6.02 Describe a business or industrial process/mechanism.
C6.03 Participate effectively in group discussions and decision making.
C6.04 Produce effective oral messages utilizing different media.
C6.05 Explore ideas orally with partners.
C6.06 Participate in conversations by volunteering information when appropriate and asking relevant questions when appropriate.
C6.07 Restate or paraphrase a conversation to confirm one's own understanding.
C6.08 Gather and provide information utilizing different media.

C6.09 Prepare and deliver persuasive, descriptive, and demonstrative oral presentations.

RELATED ACADEMIC TOPICS FOR MATHEMATICS

M1 Relate number relationships, number systems, and number theory.
M2 Explore patterns and functions.
M3 Explore algebraic concepts and processes.
M4 Explore the concepts of measurement.
M5 Explore the geometry of one-, two-, and three-dimensions.
M6 Explore concepts of statistics and probability in real world situations.
M7 Apply mathematical methods, concepts, and properties to solve a variety of real-world problems.

EXPANDED TOPICS FOR MATHEMATICS

TOPIC M1: Relate number relationships, number systems, and number theory.

M1.01 Understand, represent, and use numbers in a variety of equivalent forms (integer, fraction, decimal, percent, exponential, and scientific notation) in real world and mathematical problem situations.
M1.02 Develop number sense for whole numbers, fractions, decimals, integers, and rational numbers.
M1.03 Understand and apply ratios, proportions, and percents in a wide variety of situations.
M1.04 Investigate relationships among fractions, decimals, and percents.
M1.05 Compute with whole numbers, fractions, decimals, integers, and rational numbers.
M1.06 Develop, analyze, and explain procedures for computation and techniques for estimations.
M1.07 Select and use an appropriate method for computing from among mental arithmetic, paper-and-pencil, calculator, and computer methods.
M1.08 Use computation, estimation, and proportions to solve problems.
M1.09 Use estimation to check the reasonableness of results.

TOPIC M2: Explore patterns and functions.

M2.01 Describe, extend, analyze, and create a wide variety of patterns.
M2.02 Describe and represent relationships with tables, graphs, and rules.
M2.03 Analyze functional relationships to explain how a change in one quantity results in a change in another.
M2.04 Use patterns and functions to represent and solve problems.
M2.05 Explore problems and describe results using graphical, numerical, physical, algebraic, and verbal mathematical models or representations.

M2.06 Use a mathematical idea to further their understanding of other mathematical ideas.
M2.07 Apply mathematical thinking and modeling to solve problems that arise in other disciplines, such as art, music, and business.

TOPIC M3: Explore algebraic concepts and processes.

M3.01 Represent situations and explore the interrelationships of number patterns with tables, graphs, verbal rules, and equations.
M3.02 Analyze tables and graphs to identify properties and relationships and to interpret expressions and equations.
M3.03 Apply algebraic methods to solve a variety of real world and mathematical problems.

TOPIC M4: Explore the concepts of measurement.

M4.01 Estimate, make,and use measurements to describe and compare phenomena.
M4.02 Select appropriate units and tools to measure to the degree of accuracy required in a particular situation.
M4.03 Extend understanding of the concepts of perimeter, area, volume, angle measure, capacity, and weight and mass.
M4.04 Understand and apply reasoning processes, with special attention to spatial reasoning and reasoning with proportions and graphs.

TOPIC M5: Explore the geometry of one-, two-, and three-dimensions.

M5.01 Identify, describe, compare, and classify geometric figures.
M5.02 Visualize and represent geometric figures with special attention to developing spatial sense.
M5.03 Explore transformations of geometric figures.
M5.04 Understand and apply geometric properties and relationships.
M5.05 Classify figures in terms of congruence and similarity and apply these relationships.

TOPIC M6: Explore the concepts of statistics and probability in real world situations.

M6.01 Systematically collect, organize, and describe data.
M6.02 Construct, read, and interpret tables, charts, and graphs.
M6.03 Develop an appreciation for statistical methods as powerful means for decision making.
M6.04 Make predictions that are based on exponential or theoretical probabilities.

M6.05 Develop an appreciation for the pervasive use of probability in the real world.

TOPIC M7: Apply mathematical methods, concepts, and properties to solve a variety of real-world problems.

M7.01 Use computers and/or calculators to process information for all mathematical situations.
M7.02 Use problem-solving approaches to investigate and understand mathematical content.
M7.03 Formulate problems from situations within and outside mathematics.
M7.04 Generalize solutions and strategies to new problem situations.

RELATED ACADEMIC TOPICS FOR SCIENCE

S1 Explain the Anatomy and Physiology of the human body.
S2 Apply the basic biological principles of Plants, Viruses and Monerans, Algae, Protista, and Fungi.
S3 Relate the nine major phyla of the kingdom anomaly according to morphology, anatomy, and physiology.
S4 Explore the chemical and physical properties of the earth to include Geology, Meteorology, Oceanography, and the Hydrologic Cycle.
S5 Investigate the properties and reactions of matter to include symbols, formulas and nomenclature, chemical equations, gas laws, chemical bonding, acid-base reactions, equilibrium, oxidation-reduction, nuclear chemistry, and organic chemistry.
S6 Explore the principles and theories related to motion, mechanics, electricity, magnetism, light energy, thermal energy, wave energy, and nuclear physics.
S7 Explore the principles of genetic and molecular Biology to include the relationship between traits and patterns of inheritance, population genetics, the structure and function of DNA, and current applications of DNA technology.
S8 Apply concepts related to the scientific process and method to include safety procedures for classroom and laboratory; use and care of scientific equipment; interrelationships between science, technology and society; and effective communication of scientific results in oral, written, and graphic form.

EXPANDED TOPICS FOR SCIENCE

TOPIC S1: Explain the Anatomy and Physiology of the human body.

S1.01 Recognize common terminology and meanings.
S1.02 Explore the relationship of the cell to more complex systems within the body.

S1.03 Summarize the functional anatomy of all the major body systems.
S1.04 Relate the physiology of the major body systems to its corresponding anatomy.
S1.05 Compare and contrast disease transmission and treatment within each organ system.
S1.06 Explore the usage of medical technology as related to human organs and organ systems.
S1.07 Explain the chemical composition of body tissue.

TOPIC S2: Apply the basic biological principles of Plants, Viruses and Monerans, Algae, Protista, and Fungi.

S2.01 Identify the major types and structures of plants, viruses, monera, algae protista, and fungi.
S2.02 Explain sexual and asexual reproduction.
S2.03 Describe the ecological importance of plants as related to the environment.
S2.04 Analyze the physical chemical and behavioral process of a plant.

TOPIC S3: Relate the nine major phyla of the kingdom anomaly according to morphology, anatomy, and physiology.

S3.01 Explain the morphology, anatomy, and physiology of animals.
S3.02 Describe the characteristics, behaviors, and habitats of selected animals.

TOPIC S4: Explore the chemical and physical properties of the earth to include Geology, Meteorology, Oceanography, and the Hydrologic Cycle.

S4.01 Examine minerals and their identification, products of the rock cycle, byproducts of weathering, and the effects of erosion.
S4.02 Relate the Hydrologic Cycle to include groundwater its zones, movement, and composition; surface water systems, deposits, and runoff.
S4.03 Consider the effects of weather and climate on the environment.
S4.04 Examine the composition of seawater; wave, tides, and currents; organisms, environment, and production of food; energy, food and mineral resources of the oceans.

TOPIC S5: Investigate the properties and reactions of matter to include symbols, formulas and nomenclature, chemical equations, gas laws, chemical bonding, acid-base reactions, equilibrium, oxidation-reduction, nuclear chemistry, and organic chemistry.

S5.01 Examine the science of chemistry to include the nature of matter, symbols, formulas and nomenclature, and chemical equations.

S5.02 Identify chemical reactions including precipitation, acids-bases, and reduction-oxidation.
S5.03 Explore the fundamentals of chemical bonding and principles of equilibrium.
S5.04 Relate the behavior of gases.
S5.05 Investigate the structure, reactions, and uses of organic compounds; and investigate nuclear chemistry and radiochemistry.

TOPIC S6: Explore the principles and theories related to motion, mechanics, electricity, magnetism, light energy, thermal energy, wave energy, and nuclear physics.

S6.01 Examine fundamentals of motion of physical bodies and physical dynamics.
S6.02 Explore the concepts and relationships among work, power, and energy.
S6.03 Explore principles, characteristics, and properties of electricity, magnetism, light energy, thermal energy, and wave energy.
S6.04 Identify principles of modern physics related to nuclear physics.

TOPIC S7: Explore the principles of genetic and molecular Biology to include the relationship between traits and patterns of inheritance; population genetics, the structure and function of DNA, and current applications of DNA technology.

S7.01 Examine principles, techniques, and patterns of traits and inheritance in organisms.
S7.02 Apply the concept of population genetics to both microbial and multicellular organism.
S7.03 Identify the structure and function of DNA and the uses of DNA technology in science, industry, and society.

TOPIC S8: Apply concepts related to the scientific process and method to include safety procedures for classroom and laboratory; use and care of scientific equipment; interrelationships between science, technology and society; and effective communication of scientific results in oral, written, and graphic form.

S8.01 Apply the components of scientific processes and methods in classroom and laboratory investigations.
S8.02 Observe and practice safe procedures in the classroom and laboratory.
S8.03 Demonstrate proper use and care for scientific equipment.
S8.04 Investigate science careers, and advances in technology.
S8.05 Communicate results of scientific investigations in oral, written, and graphic form.

APPENDIX B:

WORKPLACE SKILLS

APPENDIX B
WORKPLACE SKILLS FOR THE 21ST CENTURY

WP1 Allocates resources (time, money, materials and facilities, and human resources).

WP2 Acquires, evaluates, organizes and maintains, and interprets/communicates information, including the use of computers.

WP3 Practices interpersonal skills related to careers including team member participation, teaching other people, serving clients/customers, exercising leadership, negotiation, and working with culturally diverse.

WP4 Applies systems concept including basic understanding, monitoring and correction system performance, and designing and improving systems.

WP5 Selects, applies, and maintains/troubleshoots technology.

WP6 Employs thinking skills including creative thinking, decision making, problem solving, reasoning, and knowing how to learn.

APPENDIX C:

STUDENT COMPETENCY PROFILE

STUDENT COMPETENCY PROFILE

Student: _____

This record is intended to serve as a method of noting student achievement of the competencies in each course. It can be duplicated for each student and serve as a cumulative record of competencies achieved in the program.

In the blank before each competency, place the date on which the student mastered the competency.

Fundamentals of Surgical Technology (SUT 1113)

_____ 1. Identify and interpret a job description for a surgical technologist.
_____ 2. Identify, define, pronounce, and spell various word parts of medical terms.
_____ 3. Identify the principles of drugs and anesthesia used in the care of the surgical patient.
_____ 4. Discuss principles of environmental safety procedures.

Principles of Surgical Technique (SUT 1216)

_____ 1. Identify, describe, and demonstrate the principles of pre-op routines, transportation, positioning, prepping, and draping of the surgical patient.
_____ 2. Discuss the concepts of asepsis, and demonstrate their applications.
_____ 3. Identify and demonstrate basic case preparation for surgical procedures.

Surgical Anatomy (SUT 1314)

_____ 1. Explain the integrated structures and function of body systems including cells, tissues, organs, and systems as they relate to physiologic integrity.
_____ 2. Identify and locate basic structure and function(s) of the following systems: integumentary, muscular, skeletal, nervous, sensory, endocrine, circulatory, respiratory, digestive, urinary, and reproductive (male and female).

Surgical Microbiology (SUT 1413)

_____ 1. Recognize the relationship between humans and pathogenic and nonpathogenic bacteria.
_____ 2. Identify and describe how tissues react and are restored to normal function following trauma.
_____ 3. Identify and describe physical and chemical methods used to protect patients and workers form invasion by pathogenic microbes.
_____ 4. Identify principles and demonstrate techniques of sterilization.

Basic and Related Surgical Procedures (SUT 1518)

_____ 1. Discuss the relevant anatomy, indications for surgery, patient preparation, special equipment and supplies, purpose and expected outcome, and possible complications for general, gynecological, obstetrical, and urological procedures.

Specialized Surgical Procedures (SUT 1528)

_____ 1. Discuss the relevant anatomy, indications for surgery, patient preparation, special equipment and supplies, purpose and expected outcome, and possible complications for the ophthalmological, ear, nose, throat, and plastic surgery.

Advanced Surgical Procedures (SUT 1538)

_____ 1. Discuss the relevant anatomy, indications for surgery, patient preparation, special equipment and supplies, purpose and expected outcome, and possible complications for the orthopedic, neurosurgery, thoracic, vascular, and cardiovascular surgery.
_____ 2. Be able to apply for employment and demonstrate the qualities needed for job retention.